BLM - SURPRISE FIELD OFFICE
Crooks Lake Allotment #01107

DOCUMENTATION FORM FOR DETERMINATIONS:
ACHIEVEMENT OF RANGELAND HEALTH STANDARDS,
CONTRIBUTING FACTORS AND APPROPRIATE ACTION PRIORITIES

THIS FORM DOCUMENTS, FOR THE INDICATED AREA: (1) DETERMINATIONS AND SUPPORTING RATIONALE REGARDING IF FUNDAMENTAL RANGELAND HEALTH CONDITIONS CITED IN 43 CFR 4180.1 EXIST IN THESE AREAS; (2) DETERMINATIONS, IN CASES WHERE ONE OR MORE CONDITIONS OF FUNDAMENTAL RANGELAND HEALTH DO NOT EXIST, REGARDING THE STANDARD(S) THAT IS (ARE) NOT ACHIEVED; (3) DETERMINATIONS, IN THOSE CASES WHERE ONE OR MORE STANDARDS ARE NOT ACHIEVED, REGARDING THE CONTRIBUTING FACTOR(S) THAT IS (ARE) PREVENTING STANDARD(S) ACHIEVEMENT OR IS (ARE)PREVENTING SIGNIFICANT PROGRESS TOWARDS ITS (THEIR) ACHIEVEMENT; AND, (4) THE INFORMATION THAT WAS EXAMINED THAT SUPPORT THESE DETERMINATIONS.

Indicate the date(s) or period the information review occurred: **June – July of 2008**

PART I - IDENTIFICATION OF RELEVANT AREA

A. Indicate area where these determinations and rationale apply:

1. ☐ **Site** (Specific Geographic Area) within Management Unit (allotment or pasture):
   Allotment name/no.: _____
   Place name: _____
   Legal location (if needed to ID site): _____
   Approximate size in acres: _____
   (or linear length if lotic riparian)
2. ■ **Management Unit** (allotment or pasture - list name / no. / acres):
   Crooks Lake Allotment #01107; 35,277 acres public; 5,202 acres private
3. ☐ **Landscape** (identify by groups of management units, or by watershed if cross-cutting MU's and list):
   _____
4. ☐ **Other Stratification** (identify - e.g., all riparian areas in XYZ Pasture):
   _____

PART II - IDENTIFICATION OF INFORMATION REVIEWED

The following information was reviewed in **July of 2008** to determine standards attainment in compliance with 43 CFR 4180.2**: Actual use reports, utilization, and field data from July of 2008.**

The following information (e.g. monitoring, literature, personal communication, etc.) was considered to determine standards attainment and, if applicable, contributing factor(s) to their non-achievement and failure to make significant progress towards their achievement. **Field Data Indicators Observed at 4 evaluation sites on the Crooks Lake Allotment #01107 in June and July 2008:**

Rangeland Health Attributes		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight	∑
Soils	Soils/Site Stability Indicators 1-9 & 11				**6**	**34**	**40**
Hydrologic	Hydrologic Function Indicators 1-5, 8-11 &14		**4**	**2**	**8**	**26**	**40**
Biotic	Biotic Integrity Indicators 8-9 & 11-17		**7**	**2**	**6**	**21**	**36**

Discussion of Specific Indicators (as needed):

Crooks Lake Allotment 2008 Evaluation Sites:

Pasture Name	SMU#	Site Number	Ecological Site Name	Percent of Allotment (by Soil Mapping Unit)
IV	#397 / #1175*	NV 23 – 59	Gravelly Claypan 10 – 12" P.Z.	12
IV	#364 / #1166*	NV 23 – 31	Claypan 10 – 14" P.Z.	16
VI	#1035	NV 23 – 17	Claypan 14 – 16" P.Z.	14
V	#1036	NV 23 – 17	Claypan 14 – 16" P.Z.	14

RHA #1 – Pasture IV, SMU #397 / #1175, NV 23 - 59, Gravelly Claypan 10 – 12" P.Z.
Two moderate departures for "Plant Community Composition and Distribution Relative to Infiltration" and "Annual Production" were observed in Pasture IV on a Gravelly Claypan 10 – 12" P. Z. (Low sagebrush – Thruber's needlegrass) ecological site. The moderate departure ratings were based on the amount of Thurber's needlegrass present on this site. Thurber's needlegrass although present on site should be the dominant perennial grass; Sandberg's bluegrass is now the dominant grass.

Two moderate to extreme departures for "Functional/Structural Group" and "Litter Amount" were observed in Pasture IV on a Gravelly Claypan 10 – 12" P. Z. (Low sagebrush – Thruber's needlegrass) ecological site. The moderate to extreme departure ratings were based on the one dominant perennial grass (Thurber's needlegrass) that was lacking on this site. The amount of litter that would have been associated with the needlegrass (if present) was also lacking.

RHA #2 – Pasture IV, SMU #364 / #1166, NV 23 - 31, Claypan 10 - 14" P. Z.
One moderate departure for "Annual Production" was observed in Pasture IV on a Claypan 10 - 14" P. Z. (Low sagebrush – Bluebunch wheatgrass/Thurber's needlegrass) ecological site. The moderate departure rating was based on the relative small amounts of bluebunch wheatgrass and Thurber's needlegrass found on site. With bluebunch wheatgrass and Thurber's needlegrass lacking, annual production was estimated at 40 – 60% of PNC.

Three moderate to extreme departures for "Plant Community Composition and Distribution Relative to Infiltration", "Functional/Structural Group" and "Litter Amount" were observed in Pasture IV on a Claypan 10 - 14" P. Z. (Low sagebrush – Bluebunch wheatgrass/Thurber's needlegrass) ecological site. The moderate to extreme departure ratings were based on the two dominant perennial grasses (bluebunch wheatgrass and Thurber's needlegrass) that were lacking on this site.

RHA #3 Pasture VI, SMU #1035, NV 23 – 17, Claypan 14 – 16" P.Z.
No departures over slight - moderate.

RHA #4 Pasture V, SMU #1036, NV 23 – 17, Claypan 14 – 16" P.Z.
One moderate departure for "Plant Community Composition and Distribution Relative to Infiltration" was observed in Pasture V on a Claypan 14 - 16" P. Z. (Low sagebrush – Idaho fescue/Bluebunch wheatgrass) ecological site. The moderate departure rating was based on the relative small amounts of Idaho fescue and bluebunch wheatgrass found on site.

Three moderate to extreme departures for "Functional/Structural Group", "Litter Amount" and "Annual Production" were observed in Pasture V on a Claypan 14 - 16" P. Z. (Low sagebrush – Idaho fescue / bluebunch wheatgrass) ecological site. The moderate to extreme departure ratings were based on the two dominant perennial grasses (Idaho fescue and bluebunch wheatgrass) that were lacking on this site. With the Idaho fescue and bluebunch wheatgrass lacking, annual production was estimated at 20 – 40% of PNC also decreasing the amount of litter produced annually.

*** Soils occur in both the 1999 Soil Survey of Washoe County, North Part and the 2006 Soil Survey of Surprise Valley – Home Camp California and Nevada**

A. Information relevant to **UPLAND SOILS, STANDARD 1**:

Susanville Resource Advisory Council Standards and Guidelines:
Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform, and exhibit functional biological, chemical, and physical characteristics.

Meaning that: Precipitation is able to enter the soil surface and move through the soil profile at a rate appropriate to soil type, climate, and landform; the soil is adequately protected against human caused wind or water erosion; and the soil fertility is maintained at, or improved to, the appropriate level.

Indicator(s) Observed Information Reference (i.e. identify the information source used by type and date)

Comments / Remarks:
Answers to the following were based on the field data collected on the Crooks Lake Allotment #01107 in 2008, along with management records and observations on the allotment from 1997 to 2008. Soils and ecological site information was also obtained from the 1999 Soil Survey of Washoe County, North Part and the 2006 Soil Survey of Surprise Valley – Home Camp California and Nevada.

Criteria

1. IS ground cover (vegetation, litter, and other types of ground cover, such as rock fragments) sufficient to protect sites from accelerated erosion? **Yes, the attribute ratings for all four upland assessment sites were stable and functioning for Soil/Site Stability and Hydrologic Function respectively. The majority of the allotment is comprised of low sagebrush sites with a high component of stones, cobbles and gravels that provide a lot of ground cover.**

2. IS evidence of wind and water erosion, such as rills and gullies, pedestalling, scour, or sheet erosion, and deposition of dunes either absent or, if present, does not exceed what is natural for the site? **Yes. The soils in the allotment have sufficient cover (rock and vegetative) to protect them from wind and water (raindrop and surface flow) impacts; no excessive erosion was observed.**

3. IS vegetation vigorous and diverse in species composition and age class, and does it reflect the Potential Natural Community or Desired Plant Community for the site? **No. Vegetation was found to be healthy and vigorous at all upland sites assessed. However, vegetative cover by key deep rooted perennial grass species was lacking at most sites. Current livestock use in the allotment as indicated by observations of utilization on uplands and riparian areas is not contributing to the lack of deep rooted perennial grasses. This condition (i.e. the lack of deep rooted perennial grasses) is a result of past livestock use on these key species. The lack of cover precludes a determination that all sites are at PNC. Desired Plant Community Objectives have not been established for the allotment.**

B. Information relevant to the **STREAM HEALTH, STANDARD 2**:
Susanville Resource Advisory Council Standards and Guidelines:
Stream channel form and function are characteristic for the soil type, climate, and landform.

Meaning that: Channel gradient, pool frequency, width to depth ratio, roughness, sinuosity, and sediment transport are able to function naturally and are characteristic of the soil type, climate, and landform.

Comments / Remarks: **Answers to the following criteria are based on data collected during the Riparian Functional Assessment (PFC) and water quality monitoring on 06/26/2008 for two reaches within an unnamed drainage in the Crooks Lake Allotment. The unnamed drainage flows between Crooks Lake and Fee Reservoir. The upper reach was defined as that area between Crooks Lake and private lands on Crooks Meadow. The lower reach occurs between Crooks Meadow and Poison Springs. The reach below Poison Springs and Fee Reservoir was not assessed and is approximately three miles in length. The Upper Reach segment is located entirely within pasture "X" and consists of approximately 0.9 mile of perennial flow. The lower reach is located entirely within pasture "lll" and flows for approximately 0.75 miles. Both reaches were evaluated and found to be properly functioning.**

Criteria

1. ARE gravel bars and other coarse textured stream deposits successfully colonized and stabilized with woody riparian species? **Yes, all gravel bars and coarse textured deposits are successfully being colonized and stabilized with a several different species of willow.**

2. IS streambank vegetation vigorous and diverse, mostly perennial, and holding/protecting banks during high streamflow events? **Yes, the assessed areas of both reaches are colonized with vigorous and diverse herbaceous and woody vegetation (willows, rose and aspens) capable of protecting banks during high streamflow events.**

3. DOES the stream water surface have a high degree of shading, resulting in cooler water in summer and reduced icing in winter? **Yes, the amount of woody vegetation present (willows, aspens and juniper) is**

providing shade for the majority of both reaches.

4. ARE portions of the primary floodplain frequently flooded (inundated every 1 to 5 years)? **Yes, the primary floodplain is flooded every year, as the water flows from Crooks Lake to Crooks Meadow down through the Poison Springs drainage.**

C. Information relevant to the **WATER QUALITY, STANDARD 3**:

Susanville Resource Advisory Council Standards and Guidelines:

Water will have characteristics suitable for existing or potential beneficial uses. Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California and Nevada State standards, excepting approved variances.

Comments / Remarks: **Surface and groundwater is associated with one unnamed drainage, ephemeral drainages, springs/seeps and pit reservoirs. Neither surface water nor groundwater within the Crooks Lake Allotment has been listed for exceeding State water quality standards. All drainages, springs/seeps and pit reservoirs are currently meeting the needs of beneficial uses for watering livestock, wildhorses and wildlife.**

Indications

1. ARE the chemical constituents, water temperature, nutrient loads, fecal coliform, turbidity, suspended sediment, and dissolved oxygen levels within the applicable requirements? **Only water temperature and pH measurements were taken on June 26, 2008 during the field inspection of the unnamed drainage. Both reaches within the unnamed drainage were within the Nevada Standard for water temperature and pH. Both reaches are hydrologically stable with a large number of rocks and cobbles to armor the system. The system also has a good herbaceous and woody (willows and aspen) vegetative component. Without additional quantitative data, it is reasonable to conclude that given the healthy condition of the riparian areas and the abundant native assemblage of species that the rest of the water quality parameters are also meeting standards.**

2. ARE the standards for riparian, wetlands, and water bodies achieved**? Yes, both the upper and lower reaches below Crooks Lake and the un-named meadow east of Fee Reservoir were rated as PFC.**

3. DO aquatic organisms and plants (e.g., macroinvertebrates, fish, algae, and plants) indicate support for beneficial uses? **Yes, although no fish were seen in the upper reach, macroinvertebrates noted included 2 types of caddisflies, 2 types of snails, 1 type of shrimp, 1 type of waterstrider as well as dragonflies and damselflies. Willows, Nebraska sedge and 5-6 species of riparian grasses were growing along the stream bank. Trout (unknown species) and dace and similar macroinvertibrates were found in the lower watered reach above Poison Spring.**

4. ARE there acceptable results from implementation and effectiveness monitoring or changes in management to address deficiencies identified by such monitoring? **Yes, field inspection shows very little livestock use on the unnamed drainage. The riparian areas were rated as properly functioning with a good component of woody species such as willows and aspen.**

D. Information relevant to the **RIPARIAN AND WETLAND SITES, STANDARD 4**

Susanville Resource Advisory Council Standards and Guidelines:

Riparian and Wetland areas are in properly functioning condition and are meeting regional and local management objectives.

Meaning that: The riparian and wetland vegetation is controlling erosion, stabilizing stream banks, shading water areas to reduce water temperature, filtering sediment, aiding in floodplain development, dissipating energy, delaying floodwater and increasing recharge of ground water that is characteristic for these sites. Vegetation surrounding seeps and springs is controlling erosion and reflects the potential natural vegetation for the site.

Comments / Remarks: Answers to the following were based on field data collected on the Crooks Lake Allotment in July of 2007 and June 2008, along with management records and observations on the Crooks Lake Allotment. On lentic riparian areas occurs within the allotment east of Fee Reservoir. It was first rated in 1985 using approved methods. This source was rated in 2007 using the PFC method and found to be properly functioning. This site is located within Pasture III and occupies an area of approximately one acre. The upper and lower reach of the unnamed drainage was rated in 2008 and has been described above.

Criteria

1. IS riparian vegetation sufficiently vigorous, mostly perennial, and sufficiently diverse in species composition, age class and life form to stabilize stream banks and shorelines? **Yes, especially along the stream reaches**

between Crooks Lake and Poison Springs where running water was found. These reaches contained various woody species such as aspen, rose, and willow. The lentic riparian area had no woody species on it. Some damage from hoof action by cattle (and likely some wild horses) was noted during the RFA. The meadow was rated as properly functioning. Vegetative species were vigorous and diverse and a comparison to the 1985 data and photos indicates that this site has improved.

2. IS riparian vegetation and large woody debris well anchored and capable of withstanding high streamflow events?
Yes, in perennial stream areas between Poison Springs and Crooks Lake, woody vegetation was well anchored and capable of withstanding high streamflow events. Rock plays a major role in preventing erosion complimenting the function of the vegetation. Some downed woody material was evident in the stream courses.

3. IS accelerated erosion (as a result of human related activities) evident?
No.

4. ARE age class and structure of woody riparian and wetland vegetation appropriate for the site?
Yes, a variety of woody species of various ages were present along the upper reaches between Crooks Lake and Poison Springs, including aspen, willows, and *Ribes* sp..

E. Information relevant to the **BIODIVERSITY STANDARD 5**:
Susanville Resource Advisory Council Standards and Guidelines:
Viable, healthy, productive, and diverse populations of native and desired plant and animal species, including special status species, are maintained.

Meaning that: Native and other desirable plant and animal populations are diverse, vigorous, able to reproduce, and support nutrient cycles and energy flows.

Comments / Remarks**:** **Answers to the following were based on field data collected on the Crooks Lake Allotment in July of 2004 and June 2008, along with management records and observations on the Crooks Lake Allotment.**

Indicator(s) Observed	Information Reference (i.e. identify the information source used by type and date)
☑ plant vigor (production, mortality, decadence)	- **2008 RHA**
☑ diversity of age classes	- **2008 RHA**
☑ recruitment	- **2008 RHA**
☑ community structure (layers)	- **2008 RHA**
☑ community diversity	- **2008 RHA**
☑ exotic plants (or invaders)	- **2008 RHA**
☑ wildlife life forms present (obligate)	**- 2008 RHA, prior year RFA surveys, field monitoring data and unpublished and published reports from Nevada Department of Wildlife (NDOW) and Great Basin Bird Observatory (GBBO).**
☑ special status species:	**- 2006 survey (Sequin), NDOW records, other field surveys**

Available information indicates approximately nineteen bird species occur within the allotment. Sage-grouse (sagebrush obligate) occur throughout the allotment. Two active sage-grouse leks and known summer use areas were identified via radio collar monitoring. One active golden eagle nest and one historic golden eagle nest also occur within the allotment. Mule deer and pronghorn antelope as well as numerous other game and non-game mammal species have also been observed on various occasions within the allotment. Three different butterfly species, speckled dace, trout, various aquatic macroinvertebrates and other terrestrial insects, and one skink were observed on 26 June 2008. No pygmy rabbit are known to occur in the allotment based on a 2006 survey. No potential Carson wandering skipper habitat occurs within the allotment. Limited use by California bighorn sheep has been documented by NDOW.

Criteria

1. DO wildlife habitats include seral stages, vegetation structure, and patch size to promote diverse and viable wildlife populations? Vegetation structure was diverse along riparian **Yes. All sites assessed in 2008 are low sagebrush sites. Three of the four RHA sites contained moderate to extreme departures for functional structural groups and/or plant community composition. These departures are based on a lack of**

dominant perennial grass including bluebunch wheatgrass, Thurber's needlegrass, and Idaho fescue. Declines in important deep rooted perennial plant species have been attributed to historic grazing as opposed to current livestock use. In many areas where these effects are most pronounced, bluegrass species and Bottlebrush Squirreltail have increased.

2. ARE a variety of age classes present for most species?
Yes. Reproductive capability of plants was rated as a "none to slight" departure at the four upland sites which were assessed in 2008. Within riparian areas diverse and vigorous communities of woody species such as aspen willow and rose. Other shrub species also occurred in the understories of these woody communities.

3. IS vigor adequate to maintain desirable levels of plant and animal species to ensure reproduction and recruitment of plants and animals when favorable events occur? **Yes. Plant reproductive capability was rated as none to slight departure at all four assessed upland sites. Likewise, riparian speices were noted as being vigorous with many younger plants observed.**

4. DOES the distribution of plant species and their habitats allow for reproduction and recovery from localized catastrophic events? **Yes. While frequency and density of deep rooted perennial grass species was low, these species were well distributed throughout the allotment providing a source of seed for recovery in the event of a catastrophic event. Eleven fires have burned within the allotment.**

5. ARE natural disturbances, such as fire, evident, but not catastrophic?
Yes. According to the Surprise Field Office fire history database, about ten small fires (less than 3 acres in size) have occurred in the allotment since 1952. One fire 142 acres in size burned in September of 1972. No other large scale natural disturbances have occurred.

6. ARE non-native plant and animal species present at acceptable levels?
Yes. Two of the four assessed upland sites had none to slight or slight to moderate departures based on the presence of cheatgrass, Japanese brome, and bur buttercup. However, density and distribution of these species throughout the evaluation areas has not impacted the functioning of the upland sites.

At the other two assessed sites, juniper encroachment was observed. These last two sites were rated as none to slight departures from expected. Cover values for this species, while increasing in some areas, have not impacted the health and vigor of the associated shrub and grass understory.

No non-native animal species were noted during RHA's or RFA's.

7. ARE habitat areas sufficient to support diverse, viable, and desired populations, AND are they adequately connected with other similar habitat areas?

Yes, although the carrying capacity for wildlife and other native species is likely less than would be expected if the sites contained higher concentrations of deep rooted perennial grasses.

Three of four upland sites monitored (representing approximately 40% of the allotment) were determined to have functional structural groups and/or plant community composition with moderate to extreme departures from normal due to loss of dominant perennial grasses. Litter amount was also rated as moderate to extreme departure at these sites due to the same cause. The fourth site (representing approximately 14% of the allotment) was rated as a slight to moderate departure from normal for plant community composition and a none to slight departure for functional/structural groups.

Riparian areas within the allotment are considered to be in excellent shape providing important high desert habitats for a diverse array of species. Riparian grasses were tall, vigorous and diverse. It was noted that many different layers and ages of various shrubs and trees occurred along the stream course between Crooks Lake and Poison Springs. These diverse and important habitats would be expected to provide a diverse array of nesting, feeding and loafing areas for wildlife.

Several trout were found in a shallow pool in the Lower Reach. It is unknown if these are from fish planted in Fee Reservoir or if they washed down from remnant populations planted in Crooks Lake. Water temperature was measured at one site near the location where the trout was detected. Temperature at this site was higher than optimum for fish production (79° F). Rock and large woody debris in this area was the structure maintaining the pool habitat that the trout were found in.

A variety of macroinvertebrates, in particular large shrimp and caddisflies were noted in the upper reach. No trout were observed here. This reach had abundant vegetation, instream debris and rock, and undercut channels to protect trout and create cooler areas within the stream.

Both the Fee Reservoir and Little Mud Lake sage-grouse leks have shown annual fluctuation in counts. These changes are similar to trends noted within the Sheldon National Wildlife Refuge and may not be related to habitat conditions. Sage grouse occupancy at leks throughout Northeastern California and Northwestern Nevada has been in a downward trend in recent years. Considering downward trends in all leks and due to the small size of the Little Mud Lake lek, it is possible that this lek will become inactive within the next few years. The Fee Reservoir lek however, is a moderately sized lek with an average count of about 24 birds since 2002 and is likely to persist.

According to GIS data from NDOW, bighorn sheep occupy a small (less than 5% of the allotment) area along the extreme eastern edge of the allotment (this area has the best escape habitat for bighorn sheep). Most of the allotment does not provide appropriate escape topography (steep terrain and cliffs).

Important deer habitats in the allotment include bitterbrush, mountain mahogany and juniper stands. While no bitterbrush transects have been established in the allotment, stands in the northern half were observed to be in good condition. Juniper in the allotment is abundant, and has encroached into many habitats. Mountain mahogany is concentrated mainly along the extreme northeastern edges of the allotment. The abundance and observed condition of these stands indicates very good food and thermal cover properties for deer. The amount of juniper within the allotment may have some negative effects on pronghorn antelope; however in northwestern Nevada it has been noted that pronghorn generally use areas of taller vegetation as opposed to pronghorn in their eastern ranges. A wide variety of forbs, very important to many species including deer and pronghorn, were noted at all assessed sites in the allotment.

8. IS adequate organic matter (litter and standing dead plant material) present for site protection and decomposition to replenish soil nutrients and maintain soil health?
No. Litter amount was rated as moderate to extreme departures at three of the four sites and slight to moderate departures at one site. The loss of Thurbers' needlegrass, bluebunch wheatgrass, and Idaho fescue was the reason for these ratings.

PART III - SUMMARY OF STANDARDS ACHIEVEMENT DETERMINATION AND RATIONALE

A. DETERMINATION ON STANDARDS ACHIEVEMENT

As of the date of the completion of this form, an examination of the information listed in Part II and recent field visits, if applicable, indicate the following with regard to standards achievement for the area identified in Part I:

Standard	Determination on Standard Achievement (check appropriate box for each standard)
Upland Soils	■ Met / □ Not met but progressing towards / □ Not met and not progressing towards / □ N/A
Stream Health	■ Met / □ Not met but progressing towards / □ Not met and not progressing towards / □ N/A
Water Quality	■ Met / □ Not met but progressing towards / □ Not met and not progressing towards / □ N/A
Riparian/Wetland	■ Met / □ Not met but progressing towards / □ Not met and not progressing towards / □ N/A
Biodiversity	■ Met / □ Not met but progressing towards / □ Not met and not progressing towards / □ N/A

B. RATIONALE SUPPORTING STANDARDS ACHIEVEMENT DETERMINATION

The Standard for Upland Soils is currently being met for the Crooks Lake Allotment #01107. The standard achievement determination was based on information/data from the 1999 Washoe County Soil Surveys - North Part, Crooks Lake Upland Health Assessments, actual use data, composite utilization mapping and photos taken during the assessment process, along with management records, monitoring data, and observations on the allotment since 1988. Data from the four Upland Health Assessments rated Soil/Site Stability as stable and Hydrologic Function as functioning for all sites evaluated. Ocular observations made during the upland health assessments also verified the above determination that the allotment has an abundance of total cover to protect the soil from wind and water (raindrop and surface flow) impacts.

The Standard for Stream Health is currently being met for the Crooks Lake Allotment #01107. The standard achievement determination was based on data collected during the Riparian Functional Assessment and water quality sampling on 06/26/2008 for one unnamed drainage. The unnamed drainage is between Crooks Lake and Poison Springs. The two designated reaches within this drainage are properly functioning and maintain a healthy component of herbaceous and woody vegetation (willows and aspens).

The Standard for Water Quality is currently being met for the Crooks Lake Allotment #01107. The standard

achievement determination was based on data collected during the Riparian Functional Assessment and water quality sampling on 06/26/2008 for one unnamed drainage. The unnamed drainage is between Crooks Lake and Poison Springs. The two designated reaches within this drainage are properly functioning and maintain a healthy component of herbaceous and woody vegetation (willows and aspens).
The presence of trout and macroinvertibrates as well as the vigorous and healthy vegetation component supports a conclusion that this standard is being met.

unnamed drainage on 06/26/08	**Nevada standard for Class A**
Temperature (C°): 18.7 °C average	**Must not exceed 20 °C**
pH: 8.6 average	**Range between 6.5 to 8.5**

The Standard for Riparian Wetland Areas is currently being met for the Crooks Lake Allotment. A variety of species and age classes were noted at all sites. Riparian and wetland vegetation is controlling erosion, stabilizing stream banks, shading water areas to reduce water temperature, filtering sediment, aiding in floodplain development, dissipating energy, delaying floodwater and increasing recharge of ground water that is characteristic for these sites. Vegetation surrounding seeps and springs is controlling erosion and reflects the potential natural vegetation for the site.

The Standard for Biodiversity is currently being met for the Crooks Lake Allotment. Monitoring has indicated several key upland vegetative parameters have been compromised as a result of historic grazing. However these changes have not resulted in observed biological diversity outside of expected natural fluctuations.

Riparian values are considered very high for the allotment and riparian conditions are good to excellent at all sites. The presence of trout, dace, and abundant macroinvertebrates in the small stream reaches, coupled with the vigorous and diverse distribution of key riparian woody and herbaceous vegetation provides a strong indicator that all necessary components are being met for instream aquatic life in the allotment.

PART IV - FOR THOSE STANDARDS NOT ACHIEVED, SUMMARY OF CONTRIBUTING FACTOR(S) DETERMINATION AND SUPPORTING RATIONALE

A. DETERMINATION OF CONTRIBUTING FACTORS

As of the date of the completion of this form, an examination of the information listed in Part II and recent field visits, if applicable, indicate that the following are contributing factors for failing to achieve the standards as indicated in Part III for the area identified in Part I:
Non-achieved Standard (s) (from Part III):

FLPMA Principal or Major Uses	Information Reference (what data was reviewed - type and information date)	
☐ Domestic Livestock Grazing	☐ actual grazing use	_____
	☐ grazing "licenses"	_____
	☐ utilization records	_____
	☐ field notes / photographs	_____
	☐ other	_____
☐ Fish and Wildlife Development and Utilization	☐ utilization	_____
☐ Mineral Exploration and Development	☐ road building	_____
☐ Rights-of-way	☐ _____	_____
☐ Outdoor Recreation	☐ road building	_____
☐ Timber Production	☐ _____	_____

Other Events or Circumstances Considered	Information Reference (what data was reviewed - type and information date)	
☐ Wild horse and Burro use	☐ census / distribution data	_____
	☐ other	_____
☐ exotic plant presence		_____
☐ insect impacts		_____
☐ abnormal fire frequency or lack of fire		_____
☐ abnormal climatic events		_____
☐ other _____		_____

CONTRIBUTING FACTOR(S) (LIST):

B. RATIONALE FOR CONTRIBUTING FACTOR DETERMINATION

PART V - BLM STAFF WHO REVIEWED THE INFORMATION AND RECOMMENDED PRIORITY FOR DEVELOPMENT AND IMPLEMENTATION OF APPROPRIATE ACTION TO MAKE SIGNIFICANT PROGRESS TOWARDS ACHIEVING THE STANDARD(S)

The following staff have participating in examining the information listed in Part II and in making the standard(s) achievement and contributing factor determination(s).

Elias Flores, Wildlife Biologist
Alan M. Uchida, Watershed Specialist
Steve Mathews, Rangeland Management Specialist
Steve Surian, Sup. Natural Resource Specialist/Wild Horse Specialist

SIGNATURES:	TITLES:
_____	Wildlife Biologist
_____	Watershed Specialist
_____	Rangeland Management Specialist
_____	Sup. Natural Resource Specialist/Wild Horse Specialist

In the cases where the standards are not achieved and after considering all relevant information, we recommend that the priority for developing and implementing appropriate action to achieve standards in the area identified in Part I be (check one):

□ high □ medium □ low .

We base our recommendation on the following ratings of the following factors:

Biological / Physical
Severity of resource impacts resulting from non-achievement of the standard - □ high □ medium □ low
Size of affected area -
Ability to arrest further degradation - □ easily done □ unknown □ difficult
Other:

Administrative
Proportion of federal land in the allotment - □ high □ medium □ low
Pending administrative actions (permit lease renewal / transfer, etc.) - □ pending □ not pending until FY ____
Other
_____

Social
Anticipated cooperation of the permittee / lessee - □ expected □ not expected □ unknown

Legal requirements □ compelling □ not compelling
Other

_____

Economic Considerations

PART VI - DOCUMENTATION OF THE INVOLVEMENT OF PERMITTEES, STATE AGENCIES AND THE INTERESTED PUBLIC IN MAKING STANDARDS CONFORMANCE DETERMINATION AND CONTRIBUTING FACTORS DETERMINATION

Indicate the occurrence of public participation (e.g. permittee, interested public, other Federal or State /local agency), or opportunities for public participation that pertains to the review of standards achievement and contributing factors (who, when, and conversation or meeting summary): **The public was notified of the project in January 2008, and a scoping letter was sent to 66 interested publics of record (including the permittee) on January 17, 2008. Western Watersheds Project and Nevada Department of Wildlife contributed comments that were carefully considered.**

PART VII - AUTHORIZED OFFICER'S DETERMINATION AND PRIORITY FOR APPROPRIATE ACTION DEVELOPMENT AND IMPLEMENTATION

(**X**) Existing grazing management practices or levels of grazing use in the Crooks Lake Allotment #01107 promotes achievement of significant progress towards the Approved Northeastern California and Northwestern Nevada Standards and Guidelines for Livestock Grazing of July, 2000 and conforms with the Guidelines for Livestock Grazing Management.

( ) Existing grazing management practices or levels of grazing use in the Crooks Lake Allotment #01107 will require modification or a change prior to the next grazing season to promote achievement of the Approved Northeastern California and Northwestern Nevada Standards and Guidelines for Livestock Grazing of July, 2000 and conforms with the Guidelines for Livestock Grazing Management.

I have reviewed and concur with the determinations and supporting rationale regarding the achievement or lack thereof of rangeland health standards documented herein and, in the cases where standards are not achieved, the determination and rationale regarding the contributing factor(s) for failure to achieve the standards. I have determined that the priority for developing and implementing appropriate action to achieve significant progress to achieve standards for the area identified in Part I is (check one)

Priority: □ high □ medium □ low

Staff is directed to develop appropriate action for my consideration and implementation in accordance with this priority.

Shane DeForest

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SURPRISE FIELD MANAGER DATE

COMMENTS: